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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/692,693

10/27/2003

Takayasu Ito

XA-9483A

2072

181

7590

03/10/2006

MILES & STOCKBRIDGE PC

1751 PINNACLE DRIVE

SUITE 500

MCLEAN, VA 22102-3833

EXAMINER

BENENSON, BORIS

ART UNIT

PAPER NUMBER

2836

DATE MAILED: 03/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

8/c

<b>Office Action Summary</b>	Application No. 10/692,693	Applicant(s) ITO ET AL.	
	Examiner Boris Benenson	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 36-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 36-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/27/2003</u> . | 6) <input type="checkbox"/> Other: _____  |

***Detailed Actions***

1. Preliminary amendments received on 10/27/2003 and 06/01/2004 have been entered.

- a. Claims 1-35 are cancelled.
- b. Claims 36-42 are entered.
- c. Claims 36-42 are pending in the Application.

***Claim Objections***

2. Claim 38 is objected to because of the following informalities: Claim language requires "a driver MOS transistor". A driver is usually a circuit and MOS transistor is an element. Presumably Applicants meant to indicate a driver comprising a MOS transistor. Claim language requires the differential amplifier to be turned "to either an on state or an off state". In Examiners opinion Applicants meant to indicate that the differential amplifier should turn the MOS transistor to "to either an on state or an off state". Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this

Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 36-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiraki et al. (6,424,128). Hiraki et al.

disclose an Electronic Device Having Power Supply Regulators Controlled According To Operation Mode Of Internal Circuit. The device is an integrated circuit including on-chip regulator circuit (Fig.6, Pos 110) and internal circuitry (101, 102). The on-chip regulator circuit (110) comprises a control circuitry (113, 121 and 140) and a plurality of regulators (130, 150), generating internal power supply current. The control circuitry outputs a plurality of control signals (S113, S114, S116) to control the plurality of regulators. Hiraki et al. does not explicitly indicate an area of the integrated circuit where the plurality of regulators is located, but it is clear from the

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drawings that the regulators are connected to input signals (Vcc, Vss) and therefore should be located there in input/output area. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Hiraki et al. and locate regulators generating internal power supply current in I/O area, because closeness to input pads will require less space for power buses and separated from the internal circuitry. Claim language due its broadness does not provide any more specifics about the area in which the regulators should be located.

Referring to Claim 38, each of the regulators includes an operational amplifier (131, 151), MOS transistors (133, 135, 137, 151, 155, 157) and receives control signals (S114, S116) to turn MOS in ON or OFF state according to that control signal.

### **Contact information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Boris Benenson whose telephone number is (571) 272-2048. The examiner can normally be reached on M-F (8:20-6:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be


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reached on (571) 272-2800 ext 36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Boris Benenson  
Examiner  
Art Unit 2836

B.B.



**BRIAN SIRCUS**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2800**